

REMARKS

Prior to entry of this Response, Claims 1-8 are pending in the application. The Examiner states that FIG. 4 should be labeled “Prior Art” under M.P.E.P §608.02(g). The Examiner alleges that the specification, particularly at page 9, lines 10-20, does not comply with 35 U.S.C. 112, first paragraph. The Examiner rejected Claims 5-8 under 35 U.S.C. §112, second paragraph. The Examiner has rejected Claims 1 and 5 under 35 U.S.C. §102(e) as being anticipated by Shen et al. (U.S. Patent 5,640,698). The Examiner has rejected Claim 1 under 35 U.S.C. §102(e) as being anticipated by Wormington et al. (U.S. Patent 6,297,764). The Examiner has rejected Claims 2-4 and 6-8 under 35 U.S.C. §103(a) as being unpatentable over Shen et al. in view of Ostman (U.S. Patent 6,061,385).

Please amend Claims 1, 3 and 4 as listed above. Claim 1 has been amended to recite a first mixer is for converting and outputting a frequency of the received signal, a decimation filter is for suppressing unwanted components among the frequency of the first IF signal from the first mixer; and the second mixer is for converting the frequency of the first IF signal having only wanted components outputted by the decimation filter. Claim 3 has been amended to recite that the automatic gain control (AGC) amplifier is for amplifying an output of the decimation filter and inputting the amplified output to the second mixer. And finally, Claim 4 has been amended to recite the second mixer further comprises a multiplier for multiplying the output of the decimation filter by a certain ratio of a sampling frequency and a decoding means for decoding the multiplied signal through the multiplier. Amended Clams 1, 3 and 4 are believed to be in condition for allowance.

Please add new Claims 9-19. No new matter has been added.

Regarding the objection to FIG. 4, FIG. 4 had been labeled “Prior Art”. Withdrawal of the objection to FIG. 4 is respectfully requested.

Regarding the allegation that the specification at page 9, lines 10-20 does not comply with 35 U.S.C. §112, first paragraph, the Examiner states, “it is confusing how does the filter 305

suppress the image frequency 201.” Actually, page 9, at lines 11-12, states, “an interference signal can be suppressed by the analog filter (IF filter 305)”. Further, as described at page 9, lines 10-20 of the specification and shown in FIG. 2, the IF filter 305 suppresses an image frequency of the DDC 307. It is respectfully submitted that the IF filter 305 suppresses a signal that can be an image frequency in the DDC 307. Based on at least the foregoing, withdrawal of the objection to the specification is respectfully requested.

It is respectfully submitted that if the Examiner has determined that there are other statutory problems with the Specification, the Examiner should provide the specific problems so that they may be properly addressed.

Regarding the rejection of Claims 5-8 under 35 U.S.C. §112, second paragraph, the Examiner states that Claim 5 is indefinite. It is respectfully submitted that Claim 5 should be read as it is written and as it relates to the figures. Claim 5 and the figures clearly correspond to each other. The Examiner states, ”it is unclear and confusing for which mixer and filter is referred to” in Claim 5. The “first mixer” is included in the digital down-converter; the “filter” is separate from the digital down-converter. The filter is not “of the first mixer” as suggested by the Examiner; the aliasing frequency component and an image frequency component are “of the first mixer”. Based on at least the foregoing, withdrawal of the rejection to Claims 5-8 is respectfully requested.

Regarding the Examiner’s rejection of Claims 1 and 5 under 35 U.S.C. §102(e), the Examiner states that Shen et al. discloses all of the elements of the claims. Shen et al. discloses radio frequency signal reception using frequency shifting by discrete-time sub-sampling down-conversion. Each of Claims 1 and 5 recite, among other things, that the second IF signal is output as a complexed signal. Shen et al. does not output the second IF signal as a complexed signal. Based on at least the foregoing, and based further on the amendments to Claim 1, withdrawal of the rejection to Claims 1 and 5 is respectfully requested.

Regarding the Examiner’s rejection of Claim 1 under 35 U.S.C. §102(e), the Examiner

states that Wormington et al. discloses all of the elements of the claim. Wormington et al. discloses a radar receiver having matched filter processing. As stated above, Claim 1 recites, among other things, that the second IF signal is output as a complexed signal. Wormington et al. does not output the second IF signal as a complexed signal. Based on at least the foregoing, withdrawal of the rejection to Claim 1 is respectfully requested.

Independent Claims 1 and 5 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 2-4 and 6-8, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 2-4 and 6-8 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1-19, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicant's attorney at the number given below.

Respectfully submitted,



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